

REMARKS

The above-identified application has been reviewed in light of the Office Action dated May 24, 2007. Claims 11-15 and 22-27 are currently pending, claims 1-10 and 16-19 having been previously cancelled. By the present amendment, the Applicant has added new claims 22-27 for consideration, amended claims 11 and 13, and canceled claims 20-21 without prejudice. It is respectfully submitted that new claims 22-27 and the amendments made to claims 11 and 13 are fully supported by the specification, introduce no new matter, and are allowable over the cited art of record. Accordingly, the Applicant respectfully requests reconsideration and allowance of the pending claims.

In the Office Action, claims 11-15 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 11 of co-pending Application No. 10/729,634, over claims 1 and 7 of co-pending Application No. 10/743,192, and over claims 15-21 of co-pending Application No. 10/729,768. In response to each of these provisional double-patenting rejections, the Applicant will file a suitable terminal disclaimer upon indication that claims 11-15 are otherwise allowable.

Claims 20-21 were objected to under 37 C.F.R. § 1.75(c), as being of improper dependent form for failing to further limit the subject matter of the claim upon which they were dependent. In response thereto, claims 20-21 have been cancelled without prejudice. Accordingly, withdrawal of the objection to claims 20-21 under 37 C.F.R. § 1.75(c) is respectfully requested.

Claims 11-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,921,478 to Solano et al. ("Solano") in view of U.S. Patent No. 4,295,464 to Shihata ("Shihata"). It is respectfully submitted that Solano in view of Shihata fails to suggest the retractor recited in amended independent claim 11, and therefore, that amended independent

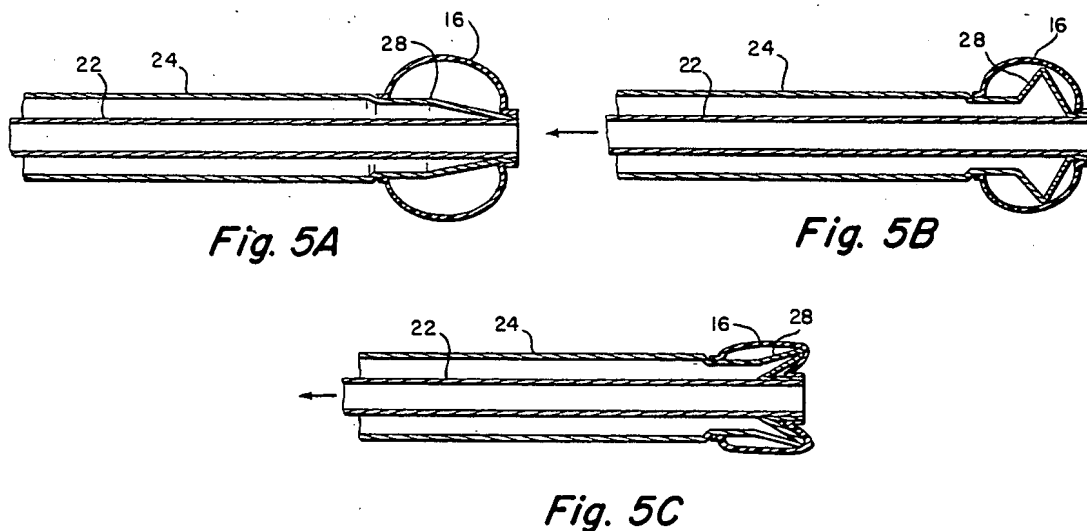
claim 11 is allowable over Solano in view of Shihata.

It is the Applicant's position that claim 11, as previously presented, is allowable over Solano in view of Shihata. However, in the interests of advancing prosecution, the Applicant has amended claim 11 herein to more clearly distinguish over Solano in view of Shihata. As amended, independent claim 11 recites a retractor including, *inter alia*, a shaft including at least one flexible portion, a plurality of inflatable bladders disposed on the shaft, "at least one of the inflatable bladders being disposed about the at least one flexible portion and being configured to cause at least a section of the at least one flexible portion of the shaft to become more rigid when the at least one inflatable bladder is inflated," and a cannula having a passage which receives the shaft to deploy the bladder at a target site in tissue. (Emphasis added).

In the Office Action, it was asserted that Solano discloses a retractor comprising a shaft 14 including at least one flexible portion 36, a plurality of inflatable bladders 16 disposed on the shaft, at least one of the inflatable bladders being configured to cause a region of the shaft to become more rigid when the at least one inflatable bladder is inflated. The Office Action acknowledged that Solano fails to disclose a cannula having a passage which receives the shaft and relied on Shihata for the disclosure of that concept.

Solano relates to an occlusion catheter including "separate occlusion and intervention components 10 and 12, respectively." (Col. 4, lines 27-28). The occlusion component 10 includes an elongated shaft 14 with an inflatable occlusion balloon 16 on a distal end thereof that is capable of being formed into a funnel shape, (Col. 4, lines 29-32). The shaft 14 is composed of an inner shaft 22 and an outer shaft 24, (Col. 4, lines 48-49), that includes a plurality of slits 27 defining a series of struts 28 about which the inflatable balloon 16 is bonded. (Col. 5, lines 45-451). During use, the inflatable balloon 16 is inflated and then the inner shaft 22 is displaced

proximally relative to the outer shaft 24 such that the struts 28 in the outer shaft 24 are buckled or folded radially outward, thereby deforming the balloon into the desired funnel shape, (col. 5, lines 56-68), as seen below in FIGS. 5A- 5C.



Solano's inflatable balloon 16 forms a seal with the wall of a vessel and occludes blood flow therethrough. Further, the relative movement between the inner and outer shafts 22, 34 causes the flexible struts 28 to buckle radially, thereby forming the funnel shape of the balloon 16 (FIG. 5C). Inflation of Solano's inflatable balloon 16 does not cause the shaft to become more rigid since Solano specifically discloses buckling of the struts 28 subsequent to inflation. In fact, rigidifying the shaft disclosed in Solano upon the inflation of the balloon 16 would frustrate the purpose and function of Solano's device, since rigidifying the shaft would impede the buckling of the flexible struts 28 and inhibit the deformation of the balloon 16 into the desired configuration, thereby inhibiting the occlusion of blood flow. Adding the cannula disclosed in Shihata, as characterized by the Office Action, fails to cure these deficiencies in Solano.

For at least these reasons, *inter alia*, it is respectfully submitted that Solano in view of Shihata fails to suggest the retractor recited in amended independent claim 11, and therefore that amended independent claim 11 is allowable over Solano in view of Shihata. As claims 12-15 depend, directly or indirectly, from claim 11, it is respectfully submitted that claims 12-15 are also allowable over Solano in view of Shihata.

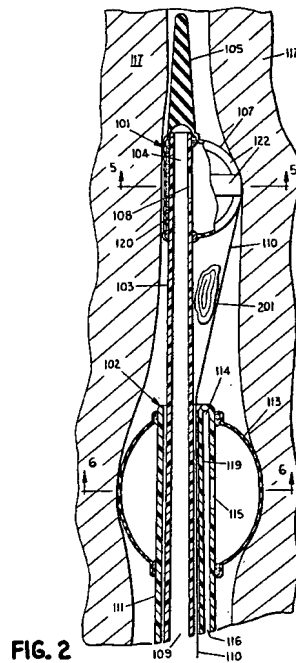
Claims 20-21 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Solano in view of Shihata. As indicated above, claims 20-21 have been cancelled without prejudice. Accordingly, withdrawal of the rejection of claims 20-21 over Solano in view of Shihata is respectfully requested.

Claims 11-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shihata. It is respectfully submitted Shihata fails to suggest the retractor recited in amended independent claim 11, and therefore, that amended independent claim 11 is allowable over Shihata.

In the Office Action, it was asserted that Shihata discloses an apparatus comprising a shaft 101 including at least one flexible portion, an inflatable bladder 107 disposed on the shaft that is configured to cause a region of the shaft to become more rigid when the at least one inflatable bladder is inflated, and a cannula 102 having a passage which receives the shaft. The Office Action acknowledged that Shihata fails to disclose a plurality of inflatable bladders, but it was asserted that it would have been obvious to one of ordinary skill in the art to utilize more than one inflatable bladder.

Shihata discloses that the “shaft” 101, as characterized in the Office Action, terminates at its far end in a conical tapering structure 105 comprising a filiform tip that is flexible. (Col. 5, lines 52-56). Accordingly, the only portion of the “shaft” 101 disclosed as having any flexible characteristics is the conical end 105. As seen in FIG. 2 below, the “inflatable bladder” 107, as

characterized in the Office Action, is disposed proximally of the flexible conical end 105, and is therefore not “disposed about the at least one flexible portion” as recited in amended independent claim 11.



Accordingly, and for at least these reasons, it is respectfully submitted that Shihata fails to suggest the retractor recited in amended independent claim 11, and therefore that amended independent claim 11 is allowable over Shihata. As claims 12-15 depend, directly or indirectly, from claim 11, it is respectfully submitted that claims 12-15 are also allowable over Shihata.

Claims 20-21 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Shihata. As indicated above, claims 20-21 have been cancelled, without prejudice. Accordingly, withdrawal of the rejection of claims 20-21 over Shihata is respectfully requested.

New claims 22-27 have been added herein for consideration. As discussed above, amended independent claim 11 is in condition for allowance. Since new claims 22-24 depend from claim 11, for at least the reasons discussed above with respect to claim 11, it is respectfully

submitted that claims 22-24 are also in condition for allowance.

New independent claim 25 recites a retractor comprising, *inter alia*, a shaft including at least one flexible portion, “a plurality of inflatable bladders disposed on the shaft, each inflatable bladder in the plurality of inflatable bladders having an eccentric configuration, at least one of the inflatable bladders being disposed about the at least one flexible portion such that a section of the at least one flexible portion becomes more rigid upon inflation of the at least one inflatable bladder, wherein the plurality of inflatable bladders includes at least two inflatable bladders that abut each other,” and a cannula having a passage which receives the shaft to deploy the bladder at a target site in tissue.

As discussed above, neither Solano nor Shihata suggests an inflatable bladder disposed about a flexible portion of a shaft “such that a section of the at least one flexible portion becomes more rigid upon inflation of the at least one inflatable bladder” as recited in new independent claim 25.

In addition, as seen above in FIGS. 5A-5C, Solano discloses a single balloon 16 disposed about a shaft, and Shihata discloses two inflatable balloons 107, 113 that are axially spaced from one another such that they do not physically touch, as seen above in FIG. 2. Accordingly, neither Solano nor Shihata suggests a plurality of inflatable bladders “wherein the plurality of inflatable bladders includes at least two inflatable bladders that abut each other” as recited in new independent claim 25.

For at least these reasons, *inter alia*, it is respectfully submitted that neither Solano nor Shihata suggests the retractor recited in new independent claim 25, and therefore, that new independent claim 25 is in condition for allowance. Since new claims 26-27 depend from claim 25, for at least the reasons discussed above with respect to claim 25, it is respectfully submitted

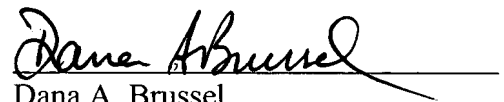
Application Serial No. 10/743,125
Response dated August 20, 2007
Reply to Office Action of May 24, 2007

that claims 26-27 are also in condition for allowance.

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely claims 11-15 and 22-27, are in condition for allowance.

Should the Examiner believe that a telephone or personal interview may facilitate resolution of any remaining matters, the Examiner is respectfully requested to contact the Applicant's undersigned attorney at the telephone number indicated below.

Respectfully submitted,


Dana A. Brussel
Reg. No. 45,717
Attorney for Applicant

CARTER, DELUCA, FARRELL & SCHMIDT, LLP
445 Broad Hollow Road - Suite 225
Melville, New York 11747
Tel.: (631) 501-5713
Fax: (631) 501-3526

CORRESPONDENCE ADDRESS:
Chief Patent Counsel
U.S. Surgical, a Division of
Tyco Healthcare Group LP
195 McDermott Road
North Haven, CT 06473